

YIN (IRENE) LIN

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EDUCATION

Shanghai Jiao Tong University (SJTU)

B.S. in Computer Science, Department of Computer Science

GPA: **89.38**/100 (3.76/4.0)

Shanghai, China

Sept. 2015 – June 2019

University of Waterloo

Research Intern in Software Architecture Group (Advisor: [Prof. Meiyappan Nagappan](#))

Ontario, Canada

July 2018 – Oct. 2018

PUBLICATIONS

Yin Lin, Xinyi Chen, Xiaofeng Gao, Bin Yao, Guihai Chen, *R²-Tree: An Efficient Indexing Scheme for Data Center Networks*, in *the 29th International Conference on Database and Expert Systems Applications (DEXA)*, 2018 (Oral, Acceptance Rate 21.88%, 35/160).

RESEARCH EXPERIENCES

Scalable R-Tree based Indexing for Server-Centric Cloud Storage Systems

Dec. 2016 – Feb. 2018

Shanghai Jiao Tong University – Advisor: [Prof. Xiaofeng Gao](#)

- Proposed a scalable R-Tree based indexing scheme for high dimensional data in data centers. Utilized R-Tree to support point, range query and used Bloom filter to reduce the false positives.
- Formulated a general definition for server-centric data center topologies and employed the two-layer indexing framework to maintain a global index layer above the structured overlay.
- Validated the indexing scheme in up to 64 instances and three different data center topologies.

Automatic Index Tuning in Data Management Systems

Aug. 2018 - June 2019

Advisor: [Prof. Xiaofeng Gao](#), [Bo Gao](#)

- Use machine learning to predict database statistics and data distribution in the storage system. Automatically reconstruct the indexes to speed up query processing.
- Investigate the learned index structures to replace the traditional B-Trees, Hash-maps, and Bloom filters.

Software Development Tools & Android SDKs

June 2018 – Oct. 2018

University of Waterloo – Advisor: [Prof. Meiyappan Nagappan](#)

- Analyzed coding tools proposed in ICSE 2014-2018. Defined a criterion to classify the tools by their functions and developing scenarios, providing keyword search support for the tools in our tool repository.
- Conducted an A/B test and built a survey website to investigate the optimal mobile ads usage pattern. This test provides guidance for developers using Google Mobile Ads SDK.

TEACHING EXPERIENCES

[CS499](#), Mathematical Foundations of Computer Science, SJTU

Spring 2018

Teaching Assistant. Instructor: [Prof. Dominik Scheder](#)

CONTESTS & AWARDS

Outstanding Undergraduate Student in Shanghai Jiao Tong University

June 2019

Meritorious Winner, Mathematical Contest in Modeling *twice, top 8% worldwide*

2017, 2018

Chun Tsung Scholar *50/2400 in SJTU, funded by Nobel Prize owner Tsung-Dao Lee*

2016

Academic Scholarship *top 10% in SJTU*

2016 – 2018

MISCELLANEOUS

GRE: 325+4.0 (V:157, Q:168, AW:4.0)

TOEFL: 108 (R:28, L:30, S:22, W:28)